

WHAT IS CLAIMED IS:

1. A semiconductor package having a trace designed as a dual referenced microstrip structure, comprising:
 - a microstrip transmission line;
 - a first conductive plane;
 - a first dielectric layer provided between the microstrip transmission line and the first conductive plane;
 - a second conductive plane; and
 - a second dielectric layer provided between the first conductive plane and the second conductive plane.
2. The dual referenced microstrip structure of claim 1, wherein an absolute value of a difference between a characteristic impedance of the microstrip transmission line referenced to the first conductive plane and the characteristic impedance of the microstrip transmission line referenced to the second conductive plane is less than a predetermined percentage of a nominal characteristic impedance of the microstrip transmission line.
3. The dual referenced microstrip structure of claim 1, wherein the characteristic impedance of a transmission line in the dual referenced microstrip structure referenced to a first reference plane minus the characteristic impedance referenced to a second reference plane is less than a predetermined value.
4. A dual referenced transmission line for transmission of a signal in a package including semiconductor circuits, wherein the dual referenced transmission line is a microstrip structure having a first reference plane suspended over a second reference plane.
5. The dual referenced transmission line of claim 4, wherein the difference between the characteristic impedance of the transmission line referenced to the first reference plane versus

the transmission line referenced to the second reference plane is less than a predetermined percentage of the characteristic impedance of the transmission line.

6. The dual referenced transmission line of claim 4, wherein the difference between the characteristic impedance of the transmission line referenced to the first reference plane versus the transmission line referenced to the second reference plane is less than a predetermined value.

7. The dual referenced transmission line of claim 6, wherein the predetermined value is less than two Ohms.